



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue  
Seattle, WA 98101

February 15, 2008

Reply to  
Attn Of: ETPA-088

Ref: 05-001-FHW

Mr. David C. Miller, Division Administrator  
Federal Highway Administration  
Alaska Division  
709 West 9<sup>th</sup> Street, Room 851  
P.O. Box 21648  
Juneau, Alaska 99802

Dear Mr. Miller:

The U.S. Environmental Protection Agency (EPA) has reviewed the **Knik Arm Crossing Final Environmental Impact Statement and Final Section 4(f) Evaluation (FEIS)**. We are providing comments in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

In our review of the 2006 draft EIS for the Knik Arm Crossing we concluded that the proposed project may cause avoidable adverse environmental impacts to wetlands and aquatic resources. Also, other alternatives (such as the No Action or the Expandable Ferry Alternatives) appear to be available to provide improved transportation service between Anchorage and the Mat-Su while minimizing environmental and related economic and social impacts. Therefore we rated the document EO-2, Environmental Objections, Insufficient Information. We made recommendations for substantive additional information and actions pertaining to the range of alternatives, analysis of environmental consequences, and mitigation for impacts.

While we are pleased to see that the FEIS includes some promising mitigation components, the basis of our objections remains. The promising mitigation components include funding for a 2-year staff person in the Mat-Su Borough to address development and permitting, and a new Memorandum of Agreement (MOA) among the Knik Arm Bridge and Toll Authority (KABATA), the Alaska Department of Transportation (ADOT&PF) and the Mat-Su Borough regarding extension of the National Highway System (NHS) from the Parks Highway. However, the comments that were the basis of our objections have not been addressed. Consequently, we continue to have environmental objections to the proposed project. Our key remaining concerns are discussed below along with our recommendations.

#### **Range of Alternatives, Clean Water Act Section 404(b)(1) Guidelines**

The FEIS did not expand the range of alternatives beyond "No Action" and one bridge alternative with approach options. We believe that other alternatives exist that appear reasonable, feasible, and compatible with the current direction of transportation and growth in the Anchorage Bowl and the Mat-Su Borough. These include the Expanded Ferry Alternative

and the Transportation Package Alternative, which includes the same commuter rail system that is currently being explored by the Alaska Railroad Corporation (Anchorage Daily News, 2/6/08).

As presented, the range of alternatives may not comply with the Clean Water Act Section 404(b)(1) Guidelines. The range of alternatives must include those that are practicable “in light of the overall project purposes” [40 CFR 230.10(a)(2)]. In addition, the definition of “financial feasibility” is subjective, and does not constrain or change the required evaluation of practicable alternatives.

The “Only Practicable Alternative Finding” included in Appendix M of the FEIS does not meet the 404(b)(1) requirements for evaluation of practicable alternatives. This Finding does not alter the legal responsibility of the Corps and EPA to evaluate practicable alternatives to proposed discharges of dredged or fill materials and to only authorize the least environmentally damaging practicable alternative (LEDPA).

As stated in the Corps’ comments on the Draft EIS, without the development of practicable alternatives or adequate data to indicate the impact of each of the alternatives it may be “impossible to determine which alternative would comply with the Section 404(b)(1) Guidelines” or determine the type and amount of mitigation that may be required.

#### Recommendations:

- We believe that additional alternatives should be evaluated to comply with Clean Water Act Section 404(b)(1) guidelines and NEPA, including the Expandable Ferry and the Transportation Package Alternatives, which do not preclude a future bridge, and would likely expand the transportation system in a manner and at a pace that would be less damaging to the environmental, economic, and social fabric of the region. Also include alternatives with longer bridge lengths, whether rail or vehicular, in order to minimize fill in waters of the U.S. and its associated impacts to Knik Arm hydrology, sedimentation, and essential fish habitat. This should include the 14,000 ft bridge, and/or a bridge alternative that is substantially longer than 8,200 ft, in consultation with the Corps of Engineers, NOAA Fisheries, and other resource agencies.

### **Environmental Consequences and Mitigation**

**Water quality, beluga whales.** We continue to have concerns about the effects of untreated stormwater from the project. Also, the FEIS has not been updated to acknowledge that the beluga has now been proposed to be listed as endangered under the Endangered Species Act (ESA). We believe that the impacts of the direct, indirect, and cumulative effects of the proposed project on beluga whales could be substantial.

#### Recommendation:

- To prevent pollution, we continue to advise that runoff from the proposed bridge be detained, treated, and/or otherwise managed to prevent pollution to Knik Arm.
- In light of the proposed listing of beluga whales, it would be prudent to analyze a range of alternatives and mitigation that would be protective of the species.



**Hydrology and sedimentation.** The FEIS presents additional data regarding suspended sediment, seabed critical shear stress, and marine hydrology. However, new modeled outcomes have not been provided to more accurately disclose the effects of the project on sedimentation, essential fish habitat, fish movement and survival, beluga whales, or the Port of Anchorage. For example, the FEIS describes the “boundary layer wedge (BLW)” as an area within which flow velocities will be lowered such that juvenile fish will be able to navigate their way past fill embankments. However, since this wedge will form down-current and thirty feet away from the face of abutments, there will still be high flows near the embankments that can impede passage of juvenile fish.

Recommendation:

- Because the fill embankments may potentially act as passage barriers, these effects should be disclosed and mitigated.

**Air quality, air toxics.** The FEIS does not address diesel emissions from construction equipment and truck traffic, stating in the response to comments that one cannot practically determine the emissions of the local fleet of construction equipment that would be used on the project. Composite emission factors from EPA’s NONROAD model for construction equipment and MOBILE6.2 for on-road equipment are readily available and have been used for other similar projects.

The EIS states that the predominant concern is only for long-term chronic effects of mobile source air toxics (MSAT). EPA believes that short term exposures can cause problems or exacerbate existing ones. The EPA *Health Assessment Document for Diesel Engine Exhaust*, May 2002, states that “Short-term (i.e., acute) exposures can cause irritation and inflammatory symptoms of a transient nature, these being highly variable across the population. The assessment also indicates that evidence for exacerbation of existing allergies and asthma symptoms is emerging.” As described in FHWA’s *Interim Guidance on Air Toxics Analysis in NEPA Documents*, mitigation measures, strategies, and solutions for countering the effects of MSAT emissions are effective and readily available.

As stated in our comments on the DEIS, we believe a cumulative effects analysis for air quality for this project should address the effects from different sources of the same pollutants that would be generated from project construction and operation. Such an analysis is not included in the FEIS. For a project of this magnitude it is important to analyze and disclose mobile source air toxics emissions, particularly in the Government Hill area where 46.8% of the residents belong to a minority population.

Recommendations:

- Provide emissions estimates for construction equipment and truck traffic during project construction, disclose the communities and sensitive receptor locations exposed to these emissions, and discuss the human health effects of these pollutants.
- Commit to mitigation measures for countering the effects of construction-related MSAT emissions.

- Provide a cumulative effects analysis for air quality, including air toxics emissions from mobile sources and from different sources of the same pollutants that would be generated from project construction and operation.

**Dispersed Development in the Mat-Su Borough.** We are pleased that KABATA has committed funding to pay for one staff person for two years at the Mat-Su Borough to address development, and an additional \$70,000 for other priority work in the Mat-Su. However, in order to mitigate impacts from this project the Mat-Su Borough (MSB) has additional requests (itemized in previous communications). In our February 16, 2006 letter we requested there be a multi-party “Mitigation Consultation Forum” established as a possible mechanism to work collaboratively toward desirable and sustainable outcomes in the Mat-Su.

Recommendation:

- The ROD should disclose Mat-Su Borough’s mitigation requests and costs, and include adequate strategies to support these needs. To avoid preventable impacts, development controls that result from inventory, comprehensive planning, and citizen involvement and education should be in place prior to project construction.

**Wildlife impacts, moose strikes.** The Knik Arm Crossing (KAC) and its proposed road paving from Point MacKenzie to Burma Road would threaten the most concentrated moose population in the Mat-Su and in Alaska. Moose populations are heavily concentrated (estimated 6500 moose) in the game management unit where the proposed project would occur and where human population growth would be most prevalent in the Mat-Su as a result of the proposed project.

We appreciate that KABATA has committed \$50,000 for study of moose in the Point MacKenzie study area. However, it is not likely that this amount will be sufficient to obtain the minimum necessary baseline information for a moose study; a more realistic estimate is approximately \$700,000. After the studies, mitigation must also be designed and implemented.

Recommendations:

- In consultation and agreement with Alaska Department of Fish & Game (ADF&G) and other partners, increase funding for needed moose studies.
- Communicate and partner with entities affected by the road paving/expansion at Pt. MacKenzie, including ADF&G, Alaska Railroad Corporation, ADOT&PF, FHWA, Alaska DNR Office of Habitat Management and Permitting, and Alaska Division of Forestry.
- Fund the necessary mitigation measures developed in response to the moose studies.

**Financial feasibility.** The FEIS does not present a substantive explanation, with supporting information, that shows how the “not-to-exceed \$600 million” cost will be achieved. This is of particular concern, since the proposed project may not meet the stated Purpose and Need with respect to financial feasibility, and the environmental mitigation costs for the proposed project would be substantially higher than what has been committed thus far.



Recommendations:

- Demonstrate financial feasibility for the proposed project, including construction timelines that span more than 2 years.
- Disclose ability and intent to adequately fund the necessary mitigation as identified by resource agencies and the Mat-Su Borough.

We appreciate the opportunity to be involved in this project and request to be kept informed and/or to be included in your future efforts to address these issues. If you have questions, or would like to discuss these comments, please contact Elaine Somers of my staff at (206)553-2966 or at [somers.elaine@epa.gov](mailto:somers.elaine@epa.gov), or Christine Reichgott, NEPA Review Unit Manager at (206)553-1601 or at [reichgott.christine@epa.gov](mailto:reichgott.christine@epa.gov).

Sincerely,

/s/

Richard Parkin, Acting Director  
Office of Ecosystems, Tribal and Public Affairs